AMENDMENTS TO THE SPECIFICATION

Please make the following amendments to the specification.

Please replace paragraph [0013] with the following amended paragraph:

[0013] A simple system is used to describe fragments, analogues, and derivatives of GLP-2. For example, Lys^{20}GLP-2(1-33) designates a fragment of GLP-2 formally derived from GLP-2 by deleting the amino acid residues No. 34 and substituting the naturally occurring amino acid residue in position 20 (Arg) by Lys. Similarly, $Arg^{30}Lys^{35}$(Nε-tetradecanoyl)~~GLP-1~~GLP-2(1-35) designates a derivative of a GLP-2 analogue formally derived from GLP-2 by C-terminal addition of a Lys residue, exchange of the naturally occurring amino acid residue in position 30 (Lys) with an Arg residue and tetradecanoylation of the ε-amino group of the Lys residue in position 35.

Please replace paragraph [0016] with the following amended paragraph:

[0016] In a preferred embodiment, the present invention relates to a GLP-2 derivative wherein the parent peptide has an amino acid sequence according to the formula ~~the following amino acid sequence (SEQ ID NO:1)~~:
~~X¹ H~~ His Xaa^2 ~~X²~~ ~~D~~ Asp ~~G~~ Gly ~~S~~ Ser ~~F~~ Phe ~~S~~ Ser ~~D~~ Asp ~~E~~ Glu ~~M~~ Met ~~N~~ Asn ~~T~~ Thr Xaa^3 ~~X³ L~~ Leu ~~D~~ Asp ~~X⁴~~ Xaa^4 ~~L~~ Leu ~~A~~ Ala ~~X⁵~~ Xaa^5 ~~X⁶~~ Xaa^6 ~~D~~ Asp ~~F~~ Phe ~~I~~ Ile ~~N~~ Asn ~~W~~ Trp ~~L~~ Leu ~~X⁷~~ Xaa^7 ~~X⁸~~ Xaa^8 ~~T~~ Thr ~~K~~ Lys ~~I~~ Ile ~~T~~ Thr ~~D~~ Asp ~~X⁹~~ Xaa^9 Xaa^{10} (SEQ ID NO:1),
wherein

~~X¹ is NH_2, DFPEEVAIVEELGRR (SEQ ID NO:2), DFPEEVTIVEELGRR (SEQ ID NO:3), DFPEEVNIVEELRRR (SEQ ID NO:4), or a fragment thereof,~~

Xaa^2 ~~X²~~ is Ala or Gly,

Xaa^3 ~~X³~~ is Ile or Val,

Xaa^4 ~~X⁴~~ is Asn, Ser or His,

Xaa[5] ~~X[5]~~ is Ala or Thr,
Xaa[6] ~~X[6]~~ Is Arg or Lys,
Xaa[7] ~~X[7]~~ is Ile or Leu,
Xaa[8] ~~X[8]~~ Is Gln or His, ~~and~~
Xaa[9] ~~X[9]~~ Is OH, Lys, or Arg, and
Xaa[10] is ~~Arg~~ Lys, ~~Lys~~ Arg, ~~Arg Arg~~ or is missing ~~Lys Lys~~ (Formula I). In one aspect, the amino acid sequence of the GLP-2 derivative further includes a sequence selected from Asp Phe Pro Glu Glu Val Ala Ile Val Glu Glu Leu Gly Arg Arg (SEQ ID NO:2), Asp Phe Pro Glu Glu Val Thr Ile Val Glu Glu Leu Gly Arg Arg (SEQ ID NO:3), Asp Phe Pro Glu Glu Val Asn Ile Val Glu Glu Leu Arg Arg Arg (SEQ ID NO:4), or a fragment thereof, positioned at the N-terminus of the Formula I sequence (Formula II).

Please replace paragraph [0025] with the following amended paragraph:

[0025] In a particular aspect, the invention relates to use of a pharmaceutical composition comprising a peptide with an ~~the following~~ amino acid sequence according to Formula I or Formula II ~~X[1] H X[2] D G S F S D E M N T X[3] L D X[4] L A X[5] X[6] D F I N W L X[7] X[8] T K I T D X[9] (SEQ ID NO:1) wherein X[1] is NH_2, DFPEEVAIVEELGRR (SEQ ID NO:2), DFPEEVTIVEELGRR (SEQ ID NO:3), DFPEEVNIVEELRRR (SEQ ID NO:4), or a fragment thereof, X[2] is Ala or Gly, X[3] is Ile or Val, X[4] is Asn, Ser or His, X[5] is Ala or Thr, X[6] is Arg or Lys, X[7] is Ile or Leu, X[8] is Gln or His, or X[9] is OH, Lys, Arg, Arg Lys, Lys Arg, Arg Arg or Lys Lys~~ for the prophylaxis or treatment of diseases or disorders associated with Impaired appetite regulation.

Please replace "aspect 47" (on page 24 of the specification) with the following amended aspect:

47. A pharmaceutical composition of any of aspects 37-46, wherein the parent peptide has an ~~the following~~ amino acid sequence according to

Formula I or Formula II ~~(SEQ ID NO:1)~~

~~X^1 H X^2 D G S F S D E M N T X^3 L D X^4 L A X^5 X^6 D F I N W L X^7 X^8 T K I T D X^9~~

~~wherein~~

~~X^1 is NH_2, DFPEEVAIVEELGRR (SEQ ID NO:2), DFPEEVTIVEELGRR (SEQ ID NO:3), DFPEEVNIVEELRRR (SEQ ID NO:4), or a fragment thereof,~~

~~X^2 is Ala or Gly,~~

~~X^3 is Ile or Val,~~

~~X^4 is Asn, Ser or His,~~

~~X^5 is Ala or Thr,~~

~~X^6 is Arg or Lys,~~

~~X^7 is Ile or Leu,~~

~~X^8 is Gln or His, and~~

~~X^9 is OH, Lys, Arg, Arg Lys, Lys Arg, Arg Arg or Lys Lys.~~

Please replace aspects "58-91" on pages 25-27 of the application with the following substitute aspects:

58. Use of a pharmaceutical composition comprising a peptide with ~~the following~~ an amino acid sequence according to Formula I or Formula II ~~X1 H X2 D G S F S D E M N T X3 L D X4 L A X5 X6 D F I N W L X7 X8 T K I T D X9 wherein X1 is NH2, DFPEEVAIVEELGRR, DFPEEVTIVEELGRR, DFPEEVNIVEELRRR, or a fragment thereof, X2 is Ala or Gly, X3 is Ile or Val, X4 is Asn, Ser or His, X5 is Ala or Thr, X6 is Arg or Lys, X7 is Ile or Leu, X8 is Gln or His, and X9 is OH, Lys, Arg, Arg Lys, Lys Arg, Arg Arg or Lys Lys~~ together with a pharmaceutically acceptable excipient or vehicle for appetite suppression or ~~satelty~~ satiety induction.

59 ~~69~~. The use of a composition according to aspect 58 ~~59~~, wherein the amino acid sequence is according to Formula I ~~X1 is NH2~~.

60 ~~70~~. The use of a composition according to aspect 59, wherein ~~X2~~ Xaa^2 is Ala.

61 ~~71~~. The use of a composition according to aspect 59, wherein ~~X3~~ Xaa^3 is Ile.

62 ~~72~~. The use of a composition according to aspect 59, wherein ~~X4~~ Xaa^4 is Asn.

63 ~~73~~. The use of a composition according to aspect 59, wherein Xaa^5 ~~X5~~ is Ala.

64 ~~74~~. The use of a composition according to aspect 59, wherein Xaa^6 ~~X6~~ is Arg.

65 ~~75~~. The use of a composition according to aspect 59, wherein ~~X7~~ Xaa^7 is Ile.

66 ~~76~~. The use of a composition according to aspect 59, wherein Xaa^8 ~~X8~~ is Gln.

67 ~~77~~. The use of a composition according to aspect 59, wherein ~~X9~~ Xaa^9 is OH.

68 ~~78~~. The use of a composition according to aspect 59, wherein the peptide has the sequence

HADGSFSDEMNTILDNLAARDFIQTKITD (SEQ ID NO:5),
HADGSFSDEMNTILDNLATRDFINWLIQTKITD (SEQ ID NO:6), or
HADGSFSDEMNTVLDNLATRDFINWLLHTKITD (SEQ ID NO:7).

69 ~~79~~. The use of a composition according to any of aspects 59-68 ~~71~~, for the prophylaxis or treatment of diseases or disorders associated with impaired appetite regulation.

70 ~~80~~. The use of a composition according to any of the aspects 59-69 ~~70~~ for the prophylaxis or treatment of obesity or type II diabetes.

71 ~~81~~. A pharmaceutical composition comprising a peptide of any of the compositions used in any of aspects 59-70 in combination with another appetite-suppressing or satiety-inducing agent.

72 ~~82~~. A composition according to aspect 71 ~~73~~, wherein said other appetite suppressing or satiety-inducing agent is glucagon-like peptide-1.

73 ~~83~~. A method of treating diseases or disorders associated with impaired appetite regulation, the method comprising administering to an individual in need of such treatment an amount of a peptide comprised in any of the compositions used according to any of aspects 59-70 sufficient to suppress appetite or induce satiety in said individual.

74 ~~84~~. A method according to aspect 73 ~~83~~, wherein the disease or disorder is obesity or type II diabetes.

75 ~~85~~. A method according to aspect 73 ~~83~~, wherein the amount of the peptide is in the range of from about 10llg/kg body weight to about 5 mg/kg body weight.

76 ~~86~~. A method of treating diseases or disorders associated with impaired appetite regulation, the method comprising administering to an individual in need of such treatment an amount of a peptide comprised in the composition used according to aspect 59 sufficient to suppress appetite or induce satiety in said individual.

77 ~~87~~. A method according to aspect 76 ~~86~~, wherein the disease or disorder is obesity or type II diabetes.

78 ~~88~~. A method according to aspect 76 ~~86~~, wherein the amount of the peptide is in the range of from about 10pg/kg body weight to about 5 mg/kg body weight.

~~89. A method of treating diseases or disorders associated with impaired appetite regulation, the method comprising administering to an individual in need of such treatment an amount of a fraction according to aspect 86 sufficient to suppress appetite or induce satiety in said individual.~~

~~90. A method according to aspect 89, wherein the disease or disorder is obesity or type II diabetes.~~

79 ~~91~~. Use of a peptide comprised in a composition used according to any of aspects 59-70 for the manufacture of a medicament for the prophylaxis or treatment of diseases or disorders associated with impaired appetite regulation.